AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1 (currently amended): A method of producing a transgenic cotton plant comprising the steps of:

(a) obtaining cotton petiole explants,

(b) exposing the petiole explants to a culture of *Agrobacterium tumefaciens* that harbors a vector comprising an exogenous gene and a selectable marker gene in medium that does not contain plant hormones and contains glucose as the sole carbon source, the *Agrobacterium* being capable of effecting the stable transfer of the exogenous gene and selectable marker gene to the genome of the cells of the petiole explant,

(c) culturing the petiole explants on a medium containing one or more plant hormones and contains glucose as the sole carbon source to induce callus formation, wherein the one or more plant hormones is 2,4-dichlorophenoxyacetic acid at a concentration up to about 0.5 mg/l and kinetin at a concentration up to about 1 mg/l and wherein the pH of the medium is from 6.5 to 7.0,

(d) selecting a transformed callus that expresses the exogenous gene on a medium that does not contain plant hormones and contains glucose as the sole carbon source, wherein the pH of the medium is from 6.5 to 7.0,

(e) culturing the selected callus in suspension culture in a medium that does not contain plant hormones and contains glucose as the sole carbon source for a duration of ~~less than about 20~~ about 10 days to about 14 days to induce formation of embryogenic calli, wherein the pH of the medium is from 6.5 to 7.0,

(f) culturing the embryogenic calli on a medium that does not contain plant hormones and contains glucose as the sole carbon source to induce formation of embryoids, wherein the pH of the medium is 6.5 to 7.0, and

(g) germinating an embryoid on a medium that does not contain plant hormones, contains glucose as the sole carbon source and contains a source of nitrogen selected from the group consisting of asparagine at an amount of about 200 mg/l to about 1 g/l, glutamine at an amount of about 500 mg/l to about 2 g/l and both asparagine at an amount of about 200 mg/l to about 1 g/l and glutamine at an amount of about 500 mg/l to about 2 g/l to obtain a young transgenic cotton plant, wherein the asparagine, glutamine or asparagine and glutamine replaces ammonium nitrogen in the medium and wherein the pH of the medium is 6.5 to 7.0.

Claim 2 (previously presented): The method of claim 1, wherein the petiole explants are pre-cultured for a period of time prior to exposure to the culture of *Agrobacterium tumefaciens*.

Claim 3 (canceled).

Claim 4 (previously presented): The method of claim 1, wherein the glucose is at a concentration of about 10 g/l to about 50 g/l.

Claim 5 (previously presented): The method of claim 4, wherein the glucose is at a concentration of about 30 g/l.

Claims 6-7 (canceled).

Claim 8 (currently amended): The method of claim ~~7~~ 9, wherein the source of nitrogen in the medium in step (g) is at a concentration of about 700 mg/l to about 5 g/l.

Claim 9 (currently amended): The method of claim 1, wherein the medium in step (g) further contains KNO_3 as a further source of nitrogen at a concentration of about 3.8 g/l.

Claim 10 (currently amended): The method of claim 1, wherein the source of nitrogen in the medium in step (g) is both asparagine and glutamine, and the asparagine is at a concentration of about 200 mg/l to about 1 g/l and the glutamine is at a concentration of about 500 mg/l to about 2 g/l.

Claim 11 (previously presented): The method of claim 10, wherein the asparagine is at a concentration of about 500 mg/l and the glutamine is at a concentration of about 1 g/l.

Claims 12-13 (canceled).

Claim 14 (currently amended): The method of claim ~~13~~ 1, wherein the suspension culture of step (e) has a duration of about 14 days.

Claims 15-17 (canceled).

Claim 18 (previously presented): The method of claim 1, wherein the 2,4-dichlorophenoxyacetic acid is at a concentration of about 0.05 mg/l and the kinetin is at a concentration of about 0.1 mg/l.

Claim 19 (currently amended): A method of producing a transgenic cotton plant comprising the steps of:

(a) obtaining tender petiole explants from cotton plants,

(b) exposing the petiole explants to a culture of *Agrobacterium tumefaciens* that harbors a vector comprising an exogenous gene and a selectable marker gene in a medium that does not

contain plant hormones and contains glucose as the sole carbon source, the *Agrobacterium* being capable of effecting the stable transfer of the exogenous gene and selectable marker gene to the genome of the cells of the petiole explant,

(c) culturing the petiole explants to induce callus formation on medium containing about 0.05 mg/l 2, 4-dichlorophenoxyacetic acid and about 0.1 mg/l kinetin and glucose as the sole carbon source, wherein the pH of the medium is from 6.5 to 7.0,

(d) selecting a transformed callus that expresses the exogenous gene on medium that does not contain plant hormones and contains glucose as the sole carbon source, wherein the pH of the medium is from 6.5 to 7.0,

(e) culturing the selected callus in suspension culture in medium that does not contain plant hormones and contains glucose as the sole carbon source for a duration of ~~less than about 20~~ about 10 days to about 14 days to induce formation of embryogenic calli, wherein the pH of the medium is from 6.5 to 7.0,

(f) culturing the embryogenic calli on medium that does not contain plant hormones and contains glucose as the sole carbon source to induce formation of embryoids, wherein the pH of the medium is 6.5 to 7.0, and

(g) germinating an embryoid on medium that does not contain plant hormones, contains glucose as the sole carbon source, contains KNO_3 at a concentration of 3.8 g/l and contains a further source of nitrogen selected from the group consisting of asparagine at an amount of about 200 mg/l to about 1 g/l, glutamine at an amount of about 500 mg/l to about 2 g/l and both asparagine at an amount of about 200 mg/l to about 1 g/l and glutamine at an amount of about 500 mg/l to about 2 g/l to obtain a young transgenic cotton plant, wherein the asparagine, glutamine or asparagine and glutamine replaces ammonium nitrogen in the medium and wherein the pH of the medium is 6.5 to 7.0.

Claim 20 (previously presented): The method of claim 1 which further comprises:

(h) growing the young transgenic cotton plant on a medium that does not contain plant hormones and contains glucose and sucrose as the carbon source to produce a transgenic cotton plant capable of growth in soil.

Claim 21 (canceled).

Claim 22 (currently amended): The method of claim 20, wherein the medium in step (h) contains about 10 g/l of each of the glucose and the sucrose.

Claim 23 (previously presented): The method of claim 19 which further comprises:

(h) growing the young transgenic cotton plant on a medium that does not contain plant hormones and contains glucose and sucrose as the carbon source to produce a transgenic cotton plant capable of growth in soil.

Claim 24 (canceled).

Claim 25 (currently amended): The method of claim 23, wherein the medium in step (h) contains about 10 g/l of each of the glucose and the sucrose.

Claim 26 (canceled).

Claim 27 (currently amended): The method of claim 23, wherein the asparagine in the medium in step (g) is at a concentration of about 500 mg/l and the glutamine in the medium in step (g) is at a concentration of about 1 g/l.

Claims 28-29 (canceled).

Claim 30 (previously presented): The method of claim 19, wherein the suspension culture of step (e) has a duration of about 14 days.

Claims 31-36 (canceled).